National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
2101 NASA Road 1
Houston, Texas 77058-3696

Reply to Attn of: EA2-07-040

JUN 2 7 2007

Drj Sun, PhD
Aerospace Industrial Development Corporation
111-7, Lane 68, Fu-Hsing N. Road,
Taichung, Taiwan, 407 R.O.C.

Dear Dr. Sun,

After reviewing your data package that you provided for the test coupons and reviewing some of the e-mail correspondence between Carlo Gavazzi Space and you, I realize that we have failed to adequately define the documentation requirements in order for the AIDC built hardware to fly to space. Memo EA2-06-043, enclosed, defines that general Acceptance Data Package Requirements for AMS hardware. When your flight hardware is delivered it must be accompanied by a documentation package that at a minimum includes the items shown in EA2-06-043. In addition, since your hardware is a composite structure, there are a few special requirements. Chittur Balasubramanian and Carl Lauritzen have developed the following specific requirements for AMS Composite structures. Please be sure to adhere to these requirements as well.

Fracture Control for Composites including Honeycomb panels

In particular cases where the requirement of proof testing of the flight article to 1.20 times the design Limit load per Section 4.2.3.5d of NASA-STD-5003 and Section 5.2 of JSC 25863 A, cannot be met, the flight hardware may be approved for fracture control based on special considerations as follows:

1) Formal quality control program and demonstrated past experience
2) Manufacturer has successful history of building a similar design
3) Certified and controlled process specifications are used
4) Personnel properly trained and certified
5) Proposed Non destructive evaluation (NDE) testing techniques are adequate to validate, quality and integrity of hardware

Based on our meeting with the fracture Control personnel at JSC they have requested the details mentioned below, so that they could assess the integrity of the composite structures in the AMS-02 experiments and approve them for the Phase II safety review.

Please provide us the following details of all the composite components in the various experiments.

1) Specify the manufacturers name for all composite parts including Honeycomb panels
2) Show basis for material properties
3) Ensure that proper quality control has been implemented during the manufacturing and assembly process
4) NDE techniques used to inspect hardware
5) Description of any sample tests conducted on the composite specimen and test results.
6) Precautions taken for damage of components during storage, handling and transportation.
7) Part drawings of all composite components

Sincerely,

Trent Martin
NASA AMS Project Manager

cc:
NASA/EA2/Ken Bollweg
CGS/Marco Molina
CGS/Christian Vettore
MIT/Joe Burger
MIT/Sam Ting
ESCG/Chittur Balasubramanian
ESCG/Carl Lauritzen
ESCG/Chris Tutt